UNITED STATES DEPARTMENT OF AGRICULTURE
Extension Service
Washington 25, D. C.

Report of Livestock Production and Marketing Conference at Jackson's Mill, W. Va., June 22-25, 1948

The Livestock Production and Marketing Conference, a copy of the program of which accompanies this report, was attended by about 60 persons from 14 States and the District of Columbia. They included Extension and research workers in both production and marketing and also representatives of public and private service agencies. A list of those in attendance is a part of this report.

The conference was an outgrowth of a series of similar annual gatherings held at different locations in the same section of the country, but devoted primarily to problems of the sheep industry.

The invitation to meet in West Virginia this year was extended by Director J. O. Knapp, of the West Virginia Extension Service, and in turn relayed to the States concerned by Director M. L. Wilson, of the Federal Extension Service.

Some of the program participants brought copies of progress reports, project outlines, and other material for distribution at the conference.

Committees were appointed at the opening of the conference to prepare reports on some of the principal phases of interest. These reports, which were approved at the closing session, are included in this report.

The talks made by three of the key speakers — C. A. Burmeister, Paul Gerlaugh, and I. H. Roberts — have been separately mimeographed, and copies are enclosed with this report.

The resolutions committee in its report proposed the appointment of a program committee to have charge of preparations for a similar conference at the same location next year. If administrative approval is obtained for the holding of the proposed 1949 conference, such a committee will be set up.

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VARIABILITY OF GRADERS IN THE LAMB GRADING DEMONSTRATION

by

C. M. Kincaid, Virginia Polytechnic Institute

Grades were available for 25 men on all 12 lambs. These men fell into three groups on the basis of deviations from the average (to the nearest third of a grade) of the three official graders. The standard errors, uncorrected and corrected for failure to agree with the average official grade, were as follows:

Group	Number of graders	Standard error in grades	
		Uncorrected	Corrected
I	10	.48	.45
II	7	.75	.52
III	8	.96	.90

The graders in group I were consistent and graded approximately two-thirds of the lambs within less than one-half of a grade of the official grades. In group II the graders were almost as consistent as those in group I, but their standards varied rather widely. In general they (group II) tended to grade below the official grades. The men in group III were relatively inconsistent in their grading. Correction for failure to agree with the average official grade reduced their standard error by an insignificant amount.

The data seem to justify the following conclusion:

1. Good graders would be expected to miss about one-third of the lambs by approximately one-half of a grade.

2. The grade standards were significantly different among consistent graders, amounting in some cases to more than two-thirds of a grade.

3. Ability to grade lambs with a reasonable degree of accuracy can be measured in terms of variability similar to those used in this study.

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THE STORY OF RMA PROJECT 97 VA.-1

(Pilot Demonstrations and Educational Work To Encourage Farmers To Adopt Better Livestock Marketing Practices)

by

M. L. Dalton, Virginia Polytechnic Institute

With the advent of the local livestock auction markets more farmers turned away from the terminal markets. This decentralization of cattle marketing and the urgent demand for any kind of slaughter animals have sent the buyers back into the country to trade with farmers direct. This put the farmers at a disadvantage, for the professional buyer had access to the killing sheets of the packer and could check on any lot of cattle with ease, while the farmer

had no such information at his fingertips. It is true he did have market news, but these reports were veiled in grade language that he did not understand.

An educational program on live cattle grading had been discussed for some time by the Virginia Extension Service, but nothing had been done because of lack of funds. Farmer interest was well known on account of the fine cooperation given the State's grading program on feeder calves and lambs. Since the planned project was new and untried in Virginia, we sought the assistance of the marketing specialists of the Federal Extension Service in getting our thoughts on paper. The project seemed to be a "natural," for here in one project were many of the things the Research and Marketing Administration had set out to do. It certainly had the educational phases, the new feature, and was of a pilot demonstration nature.

The project was signed by E. A. Meyer, Research and Marketing Administrator, on October 6, 1947, and became the first Extension project approved under the act.

The project is unique also, in that Federal Extension Service, Production and Marketing Administration, Virginia Division of Markets, and Virginia Extension Service are all sharing in its operation. The Federal Extension Service furnished supervisory personnel in order to get information on this pilot project that may be useful in other States. The PMA Livestock Branch cooperates in the live and carcass grading through agreements with the Virginia Division of Markets. The certified graders of the Virginia Division of Markets do the actual grading. The Virginia Extension Service handles all the arrangements for demonstrations, makes reports on progress, assembles data to give to farmers, and conducts other educational phases of the program.

The Virginia Agricultural Experiment Station, though not sharing in the budget, cooperated by analyzing the data on both live and carcass grading.

The objectives of the project were to demonstrate the feasibility of marketing livestock by grade and to bring about more effective use of market news and outlook information. The accomplishments so far have been small but encouraging. We began by holding a series of meetings in the cattle feeding sections to tell the farmers about our plans. These meetings were very well received, as shown by the attendance of 207 in four such gatherings. Grading demonstrations were put on in nine counties, where 653 slaughter cattle were graded before 2,746 farmers. At all these demonstrations, the cattle were ear-tagged for identification, which allowed us to follow each individual animal through the packing house and get the carcass grade. The live grades and the carcass grades were then compared, and a report was sent to each farmer in attendance at the demonstration.

The interest that has been shown in the project to date by farmers has been very gratifying. Livestock men in the grazing sections of Virginia have requested more grading than can possibly be done during the 1948 marketing season. It is regrettable that all the Virginia grass cattle cannot be graded this year, but enough will be graded to get some information on this type of production.

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COOPERATIVE MEAT-PROCESSING DEVELOPMENTS

by

C. G. Randell, Farm Credit Administration

According to the records maintained at the Farm Credit Administration, during the period 1914 to 1920, 13 so-called cooperative meat-packing plants were established in the States of Wisconsin, Minnesota, Illinois, Iowa, the Dakotas, and Michigan. Four other packing plants were organized as private concerns with farmers as principal stockholders. The development of these plants was undertaken in nearly all cases by promoters who were more interested in collecting large fees for organizing the plants than they were in seeing that farmers had good plants and the management to operate them. In establishing these plants the promoters took advantage of the distrust of the large packers at that time.

The big five, now the big four, packing companies, according to the report of the Federal Trade Commission in 1918, owned and controlled most of the important public stockyards of the country, where over 75 percent of all meat animals were marketed. They processed over 70 percent of all animals slaughtered under Federal inspection and operated over 91 percent of the refrigerated cars. These same packers either owned or controlled most of the market newspapers published at terminal livestock centers. The unrest among farmers made them susceptible to promotional efforts.

All of these early cooperative plants failed from lack of capital, unsound promotion, incompetent management, inadequate sales outlets, and competition.

One of the plants that failed was the Detroit Packing Co. In 1933, when this plant was thrown into receivership, the Farm Credit Administration was asked to reorganize it on a cooperative basis. This was done and after a period of several years, during which time an expenditure of over half a million dollars was made by the plant to modernize its machinery and equipment and improve operating methods, the plant was put on a successful operating basis and has continued to show substantial savings ever since. This plant has been used as a laboratory in working out new and improved processing methods and costs of conducting many operations in the meat-packing business. The installation of a new power plant, new refrigeration system, and new lay-outs for inedibles have been written up in trade magazines as models of efficiency. Starting with nothing but a worn-out plant, the cooperative has built up an efficient packing plant, which is now serving over 11,000 farmer-stockholder members.

Besides making money and saving hundreds of thousands of dollars for producers, the Detroit Packing Co. has been active in developing a livestock improvement program for its farmer stockholders.

During the war, we assisted the P. & C. Stores in New York in designing a packing plant to be located at Syracuse, N. Y. Plans were completed and approved by the Federal Meat Inspection Division. Construction was not started, however, because of high costs of material and labor. The idea in establishing this plant was to furnish an outlet for livestock producers for their stock and, at the same time, process meat for a chain of cooperatively owned markets established by the P. & C. organization.

The Missouri Farmers Association purchased a private packing company, at Springfield, Mo., and began operating it as a cooperative on January 1, 1946. Since the cooperative took over the plant, facilities have been greatly improved and sales built up. Sales at this plant are now running over $3,000,000 a year.

Over a period of several years a number of cooperative meat slaughtering and processing plants have been established in Illinois to serve locker plants. Approximately 18 of these plants are now in operation. A number of plants have been built, which have cost from $125,000 to $175,000. These have been designed to slaughter livestock and process meat for the cooperative locker plants. Recently the McLean County Cold Storage Locker Co. purchased the meat-packing plant of Louie Heller & Sons, Inc., at Normall, Ill. This plant has a capacity of approximately 75 to 80 cattle per week. Plans are to add hog slaughter and processing facilities.

More than a year ago the Indianapolis "Producers" leased the Stoney Pike Packing Plant at Logansport, Ind., along with the local stockyards. This has been operated by the Cass County Producers Association, killing on a custom basis. We have recently been requested to inspect the plant and determine what changes and additions should be made in machinery and equipment to enable the plant to enlarge its refrigeration, curing, and smoking facilities.

More than 2 years ago, our office was requested by a group of farmers in the Shenandoah Valley of Virginia to help them organize a cooperative meat-packing plant. The outgrowth of this development has been the establishment of Shen-Valley Meat Packers, Inc., at Timberville, Va., which is expected to be completed in October of this year. The plant has approximately 1,500 farmer-stockholders located in 22 counties of Virginia and West Virginia. The Shen-Valley plant is designed to slaughter and process 500 cattle, 500 calves, 500 sheep and lambs, and approximately 1,200 hogs per week. A great deal of time has been spent in design and lay-out of the plant in order to streamline operations from the stockyards clear through to the shipping dock.

Farmers now interested in developing cooperative meat-packing plants are fully advised of the problems involved in engaging in this type of business. In other words, they are going in with their "eyes open." They feel that by the development of their own processing plants in producing territories they have the opportunity of making considerable savings in freight and shrink on their livestock. They know what their livestock is actually worth when processed into salable products, and they know the cost of slaughtering livestock and processing the various products. They also feel that there are opportunities to make some savings and also to be paid premiums for producing quality livestock. For example, the Detroit Packing Co. at present is paying farmers 40 cents a hundred above the top of the Detroit market for producing meat-type hogs. If building and labor costs during the next few years are reduced, it is possible that farmers will build or acquire additional plants to slaughter and process their livestock.

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OPPORTUNITIES FOR DEVELOPMENT OF REGIONAL LIVESTOCK PROGRAMS

I - Under the Research and Marketing Act

by

Harry C. Trelogan, Research and Marketing Administration

Dr. Trelogan briefly described the Research and Marketing Act, calling attention to the complexity of the act and the fact that it needs to be discussed in terms of its separate parts. Accordingly, he reviewed the historical background, the purposes, the distinguishing features, and the limitation upon the use of funds that are separately appropriated for sections 9, 10(a) and 10(b) of title I, and for title II. He indicated that section 9 was appropriated for the use of State agricultural experiment stations, and most of the discretion exercised with respect to the use of these funds was left with the State agricultural experiment station officials. Section 10(a) provided funds for research pertaining to utilization, most of which was to be conducted by Federal agencies, especially the Bureau of Agricultural and Industrial Chemistry, and a considerable part of the funds was to be used for contracts with outside agencies. Section 10(b) was intended for research other than utilization research, with the provision that these funds used by Federal agencies were to conduct research in cooperation with State agricultural experiment stations. Title II provides for research and service work pertaining to marketing, this section of the act having more participants and more claimants upon the money available than any other section.

Dr. Trelogan then discussed several unique features incorporated in the Research and Marketing Act covering regional cooperative research, contract research, and advisory committees. He described the policies and procedures adopted with respect to each of these as well as other matters related to the administration of the act. It was pointed out that all service work under the act was financed from title II funds. This includes extension work and work performed by the State departments of agriculture.

Consistent with the general policies adopted under the act, the responsibility for all such work is delegated by the Administrator of the Research and Marketing Act to established agencies functioning in each field. Accordingly, he indicated that major responsibility with respect to Extension Service work financed with Research and Marketing Act funds was placed with the Federal Extension Service. The Department of Agriculture leaned heavily upon this agency to negotiate with the States for the projects that were to be undertaken. He called attention to the fact that committes made up of Extension Service personnel have worked diligently and effectively in helping to prepare guiding principles that can be utilized in preparing and reviewing these projects.

The same type of approach is used in organizing the program with State departments of agriculture, but in this instance the responsibility for working out the program is lodged in the Production and Marketing Administration. Committees representative of the State departments of agriculture and bureaus of markets perform a similar function in helping to formulate the general program.

With respect to livestock work, Dr. Trelogan indicated that it represents a substantial part of the work conducted under every section of the Research and Marketing Act. He briefly cited a series of projects illustrative of the types of research and service work that was being undertaken under each section pertaining to livestock.

In closing, Dr. Trelogan called attention to the fact that the appropriations for the act for the fiscal year 1949 were considerably less than the authorizations in the original act. Consequently, many of the plans that had been formulated on the basis of the authorizations could not be financed. Many of the going projects would necessarily have to be curtailed, and very little opportunity was provided for the initiation of new work in this fiscal year under the circumstances.

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II - What BAI Can Contribute

by

H. C. McPhee, Bureau of Animal Industry

Dr. McPhee was not able to attend the conference but submitted the following outline of what the Bureau of Animal Industry could contribute to regional livestock breeding research programs:

1. Basic information on breeding methods.
   A. Heritability of important economic traits, such as rate of gain, efficiency of feed utilization, and points of carcass quality.
   B. Methods for measuring inherited traits.
   C. Advice on selection methods for use in improvement program (progeny test, sib test, individual performance).
   D. System of breeding — inbreeding, crossbred, non-inbred. Intensity to follow for various traits and with different intensities of selection.

2. Supply tested breeding stock.
   A. By loan to cooperators or by sale.

3. Field testing of breeding strains and methods.
   A. In cooperation with State agencies and breeders.
   B. Testing and propagation of economically superior animal populations.

4. Cooperative breeding research with State agencies for the purpose of:
   A. Identification and propagation of superior breeding lines.
   B. Identification of superior combinations of breeding lines.

5. By way of examples of such efforts the following might be mentioned:
   A. Regional Swine Breeding Laboratory.
      1. Bureau supplements work of State agencies.
      2. Bureau supplies personnel.
         (a) Cooperative agents.
         (b) Essential coordinating personnel.
   B. Regional Beef Cattle Breeding Project.
      1. Furnishes basic information on heritability, breeding systems, and selection procedures.
      2. Identifies and propagates purebred lines of high value, based on the sib test.
      3. Derives lines suited to local conditions including the use of Brahman both pure and in combination.
   C. National Poultry Improvement Plan.
      1. Coordinates work of State agencies supervising hatcheries, breeders, and flock owners.
      2. Has contributed materially to the 20-percent increase in egg production per hen and 50-percent reduction in pullorum disease in last 12 years.

6. Problems for further consideration.
   A. Can small breeders achieve progressive improvement in their herds and flocks, or must they depend on larger breeders for tested stock?
   B. Will the market pay for higher quality?
      1. Leaner pigs with high percentage of choice cuts.
      2. Meatier lambs, steers, and chickens.
   C. How can identity of superior breeding stock best be maintained?
      1. Part to be taken by registry associations.
      2. Part to be taken by official agencies.

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III - What State Experiment Stations Can Contribute

by

C. M. Kincaid, Virginia Polytechnic Institute

The State experiment stations can contribute to regional livestock programs by helping delineate the more important problems in the various localities and by assuming responsibility for different parts of an integrated program. Testing work, even with the same stock at several different places, is important in measuring their particular, as well as their general suitability. An inventory of existing seed stocks seems necessary to the building of a sound regional research program that aims to improve livestock through breeding methods.

As a part of the beef cattle breeding research for the southern region, Virginia and certain other State experiment stations propose to investigate the possibility of improving the performance of beef cattle by obtaining

record-of-performance data on bulls in the recognized beef breeds and on their progeny. This work will provide estimates of expected progress which can be made by obtaining individual performance of potential sires and also assist in the identification of the better performing stocks or herds within our present breeds.

A preliminary test at the Virginia Station indicated that the rate of gain when pasture is the sole feed may be highly heritable. Random samples within sires of 3 to 5 calves of each sex from 8 different sires in 7 different commercial herds were obtained at weaning in October 1946. These calves were fed and housed in the same manner until April 20, 1947, when they were put on pasture. With pasture as the sole feed from April 20 to October 6, 1947, average gains by sire progenies ranged from 290 to 360 pounds per head. Although cow differences from herd to herd and carry-over effects associated with different farms may have been responsible for part of the variation, the data suggested strongly that ability to gain from pasture might be increased rather rapidly by selecting sires on the basis of their own performance.

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REPORT OF COMMITTEE ON PROPOSED STANDARDS FOR MEASURING PROGRESS IN VARIOUS PRODUCTION PROJECTS

Evaluating the results of recommended practices in production projects appears to be a difficult part of general livestock extension work. Only in the sow-testing program do we have something approved by breed associations and workable in nearly all States. It requires a minimum amount of record keeping, and weighing pigs at approximately 56 days of age may be easily done on bathroom scales.

Measuring production of beef cattle and sheep is more difficult. It is not the purpose of our committee to propose standards for record-of-production projects that could be used by all the States represented here. We do hope, however, to point out a few standards now being used in various State projects and some of their advantages and disadvantages.

Record-of-production projects range from the gathering of a few simple records to complex forms where both cooperators and extension workers have considerable record-keeping work to do. The simple record projects reach more cooperators but provide less information on the herd or flock. The more detailed projects require a careful selection of a small number of cooperators located where they may be used as demonstration farms.

A few simple measurements that might be used for cowherds would be percentage calf crop, grade of calf, and weight for age of calf. The grade and weight might be obtained at feeder calf sales. Gross income per cow would also be one simple, valuable standard. Mr. Muldrow uses very effectively a different type of measurement. He works with a few breeders in each area on a program that will give the cooperator a figure of net income per acre on the land used by the cattle. All production expenses are subtracted from the calf crop income, and the net income is divided by the number of acres. The measurement standard will show the rent received from the land used.

The West Virginia Master Shepherds' Project is well known to most sheep extension workers. Scoring is on the basis of 70 points on gross income per ewe bred, 20 points on practices, 10 points on completeness of records, and a 1-point bonus for each 10 ewes above 15.

Other types of projects include the "100 and 8" project of Kentucky. The Michigan Record-of-Performance Project is based on production of lamb at 135 days and the wool production per 100 pounds of ewe weight. This project requires weighing ewes at midgestation and lambs when they average 135 days old. It is a rather detailed project but yields excellent information on production.

A very simple production measurement would be gross income per ewe.

These are just a few standards and record-of-production projects discussed by the committee. All have their advantages and disadvantages. Standards based on income are harder to use to show progress from year to year. Those using weights are harder to obtain. The committee members appeared to favor simple standards that could be easily understood by cooperators. They also would prefer to have record of production on project, rather than contest basis, in order to be of greatest extension teaching value.

Show ring standards have been one of the main measurements used in the past to determine production results. We all know that these standards have many limitations. Entire herd or flock classification, however, may be a measurement standard that we should use more in purebred flocks and herds. New York State Angus breeders are well satisfied with a classification program recently started.

The committee feels that the proper measurement of results and progress in livestock production work is of such great importance that more thought should be given this matter by State extension workers and a more complete report of various measurement standards should be given next year at this conference.

Reference Bulletin: Factors Affecting Productivity in Breeding Sheep. Tech. 174 - University of Minnesota.

George R. Johnson, New York, Chairman
W. L. Finley, Michigan
George W. Litton, Virginia
C. D. Lowe, USDA
Ben Morgan, West Virginia
M. W. Muldrow, Arkansas

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REPORT OF COMMITTEE ON FEEDER CATTLE MARKETING

The feeder cattle marketing committee recommends:

1. That States with feeder cattle marketing problems initiate a grading program based on U. S. standard grade specifications.

2. That States with common interests in beef cattle work cooperatively on a regional basis for unification and standardization of grades.

3. That the State extension services use grading demonstrations and other teaching methods pertaining to cattle marketing, with the understanding that grading is a regulatory activity, and should be released to other agencies as soon as its educational benefits have been adequately demonstrated.

4. That work on feeder cattle marketing is a year-round job, and that to make such programs effective will require the employment of additional personnel, adequately trained in animal husbandry and marketing.

5. That States with common interests, such as the Appalachian region, get together for the purpose of further exploring possibilities and developing a grading and marketing program for feeder cattle.

B. F. Creech, West Virginia, Chairman
C. A. Burge, Pennsylvania
L. M. Dalton, Virginia
L. C. Madison, Pennsylvania
J. H. Warner, Ohio

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REPORT OF COMMITTEE ON LIVESTOCK PARASITE CONTROL

CATTLE

ECTOPARASITES

Cattle Grubs

Rotenone is still the only toxicant recommended for the control of cattle grubs. The rotenone powder may be used as a dust or water suspension, and should be 325-mesh fineness and contain 5-percent rotenone. It may be applied as a spray, dust, wash, or dip.

Spray

Power spraying with at least 400 pounds nozzle pressure gives fast and efficient control. Complete saturation of grub-infested areas on the animal is essential.

Formula for spray:

7½ pounds of 5-percent rotenone (or its equivalent to contain .04 percent rotenone) bearing powder.

100 gallons water
Amount generally needed is 2 quarts per animal.
No wetting agent is needed if spray is applied with a power sprayer equipped with a suitable agitator.

Dusts

Treating the infested animals with 3 ounces of at least 1.5-percent rotenone dust is very effective, but slow, since the dust must be rubbed into the hair. The dust should contain approximately 1 part by weight of rotenone-bearing powder to 2 parts by weight of a heavy diluent such as tripoli earth or pyrophyllite.

Washes

Treating by washes is very effective for the control of cattle grubs, although it is a slow, laborious procedure. The wash is applied to the infested area of the animal, which is scrubbed with a stiff brush. One pint per grown animal should be used.

Formula:

12 ounces of 5-percent rotenone-bearing powder.
2 ounces of soap or some other desirable wetting agent.
1 gallon of water.

Interval between treatments.

For most economical control, apply the material at 30-day intervals during the grub season.

Treatment should start shortly before grubs reach maturity.

New materials, such as benzene hexachloride, chlordane, and chlorinated camphene are now definitely known not to control cattle grubs.

Area control for grubs is strongly recommended, since heel flies usually migrate for only a short distance.

Horn Flies

It has been pointed out and conclusively shown that effective horn fly control by the use of DDT will also control some other ectoparasites.

It is also realized that different methods of applications will be used and the concentration of DDT sprays and the amount of material may vary with the method of application. On the average stock farm the materials will be applied by hand sprayers and small power sprayers.

Control:

Water-dispersible powder is the preferred form of material for use in horn fly control. DDT wettable powder has been found to be economical and effective under a wide variety of conditions, and no toxic symptoms have been observed in treated animals. A good emulsion concentrate, properly formulated and mixed, can be used. At present, however, it is difficult to designate specific emulsions for general use.

The concentration of DDT and the quantity to use per animal depend upon the method of application and local conditions. It has been found that the most practical and effective concentration for this area is 1.5-percent DDT (1 pound of 50-percent wettable DDT powder to 4 gallons of water).

The quantity of spray necessary to wet an animal thoroughly will depend upon the breed and size of the animal and the method of application. The quantity of spray will average from 1 to 1.5 pints per head.

The possible danger of DDT in milk from cows treated with this material must be recognized.

Cattle Lice

The preferred material for control of cattle lice is DDT.

1. If no application has been made for horn fly control, use one of the following treatments in the fall.
   A. One thorough application of 1.5-percent DDT spray.
      For dairy cattle use: 2 pounds of 5-percent rotenone-bearing powder.
      100 gallons water.
      Spray at intervals of 2 weeks.
   B. Two applications of 1-percent rotenone dust at 15-day intervals.

2. Spraying, dipping, or dusting with rotenone in cattle grub control operations will control lice — provided coverage is thorough.

3. Benzene hexachloride is effective but still in the experimental stage. Any use of it at present should be restricted to beef animals and at concentrations not in excess of 0.06-percent gamma isomer.

INTERNAL PARASITES (CATTLE)

Phenothiazine for Removal of Worms

Doses of 10 grams (about 1/3 ounce) per 100 pounds of body weight are effective for removing common stomach worms, trichostrongyles, and nodular worms, but larger doses are required for removal of ostertagia. Since this latter species occurs widely and is capable of severe damage to calves, doses of 20 grams (about 2/3 ounce) for each estimated hundredweight are generally recommended. The total dose, however, should not exceed 60 grams, or about 2 ounces.

SHEEP

ECTOPARASITES

Fleece Worms

The fleece worm treatment using Formula 793F consisting of—

10-percent diphenyl
1-percent triton x 70
5-percent N - butyl alcohol
84-percent benzol

— is still recommended, but preliminary research indicates that several of the new chlorinated insecticides at a concentration of 2-percent are superior to 10-percent diphenyl in protecting animals from reinfestation.

In areas where Formula 793F is unavailable Smear 62 has been used with good results.

Benzene hexachloride has been found effective in promoting healing of fly sores where maggots are involved.

Sheep Ticks

Sheep ticks can be eradicated by one dipping in 0.2-percent DDT applied as an emulsion or suspension. Eight ounces of 5-percent rotenone or its equivalent in each 100 gallons of water applied as a dip, is also recommended.

Either of these will also control sheep lice.

Sheep Scab

Dip (shorn sheep)

8 pounds of benzene hexachloride containing 6-percent gamma isomer per 100 gallons of water.

For unshorn sheep 4 pounds of benzene hexachloride containing 6-percent gamma isomer may be used. In either case the amount of gamma isomer in the dip should be .06-percent and .03-percent respectively.

Sheep Head Bot

Control of sheep head bot may be obtained by injection of 3-percent aqueous lysol solution into the nasal passages under 30 to 40 pounds pressure.

INTERNAL PARASITES (SHEEP)

Gastrointestinal Roundworms

Phenothiazine is the most useful drug for removing and controlling gastro-intestinal roundworms of sheep and goats. To remove these parasites, doses of 20 to 40 grams(usually 25 grams, or about 1 ounce) are given to adult animals and about one-half of these amounts to lambs and kids under 60 pounds. The chemical is administered in capsules, as drenches or in any suitable feedstuff. Treatment should not be given to ewes and does during the last month of pregnancy.

The free choice administration of phenothiazine in salt is a very effective control measure. It consists in making accessible to flocks of sheep a mixture of phenothiazine, 1 part by weight and loose salt, 9 or 10 parts by weight, as a means of self-medication.

W. P. Tyrrell, Tennessee, Chairman
George C. Herring, Virginia
Myron Lacy, New York
H. M. Newton, West Virginia
I. H. Roberts, USDA
Benjamin Schwartz, USDA

REPORT OF COMMITTEE ON REGIONAL APPROACH TO LIVESTOCK PROGRAMS UNDER RMA

1. RMA Sets New Standards for Livestock Projects.

States within a geographical area may have a common or related interest in specific livestock problems. RMA designates new standards that permit such States jointly to develop specific livestock production and marketing projects that meet specific problem needs of several States or of a region. Individual States may also qualify specific projects under title 2.

2. State Staff Members Have Responsibility.

The allocation of RMA funds for Extension use places an immediate responsibility upon staff members from the several States in attendance at this conference. Our common task is to assist in the development and instigation of regional livestock production and marketing educational projects that:

a. Are new.
b. Fit specific problem needs of the livestock industry.
c. Permit a joint approach in project planning and development to meet the common economic need of participating States for a particular geographic area.
d. Meet project standards of execution as defined in the act.
e. Provide for efficient and effective use of allocated project funds.

3. Regional Projects Offer Joint State Participation and Provide Experienced Administration.

a. State projects are difficult to extend since:
   (1) State offset funds are required.
   (2) Offset funds are not readily available from present administrative budgets.
   (3) Many States are handicapped by lack of know-how in project development. By participating in regional projects these States can benefit from experience of other States and Federal Extension workers. Thus regional projects may well open the door for their later participation in State projects.
b. Regional project developments are recommended since:
   (1) Offset State funds are not required.
   (2) Initial development would require less total personnel.
   (3) Informed and experienced Washington project administration would be available.
   (4) Regional project participation would give effective training for State project leadership.
   (5) Quicker claiming of RMA allocations could be effected.
c. Committee project recommendations, in section 4 below, suggest possible action areas:
   (1) Which might be coorelated with present State activities.
   (2) That are generally understood by members of this conference group.
   (3) That meet economic needs of several States represented in this conference group.

(4) That provide for experienced counsel and advice on project development and execution.

(5) That would provide travel funds for regional project and conference participation.

4. The Committee Recommends Four Regional Livestock Production and Marketing Project Areas for Consideration.

The area covered by Project a is given first consideration since it presents a timely geographical economic problem need. Project development would not be difficult and could be carried out at an early date.

Projects b, c, and d would be considered in order named. The four area projects taken together constitute the beginning of a long-time program. Execution of this area or regional program should encourage extension of contributing State projects.

a. Project. - Feeder calf and cattle market informational service.
   (1) Sources, character, seasonal availability of supplies, and current reported sale prices by States, compiled and distributed to States needing feeder stock. Possible particpating States: West Virginia, Virginia, Kentucky, Tennessee.
   (2) Sources, character, and nature of seasonal demand for feeder cattle, compiled by States and distributed to States having surplus of feeder cattle. Possible participating States: Ohio, Pennsylvania, New York, New Jersey.
   (3) This development would strengthen any contributing State projects now in effect. Immediate execution necessary if effective for 1948 fall market movement of feeder calves and cattle.

b. Project. - Procurement of desirable replacement breeding ewes for farm flocks. Possible participating States: Kentucky, West Virginia, Virginia, Tennessee, Ohio; Texas, Oregon, Washington, Montana, Wyoming, Idaho. (Western ewes for Eastern States.)

c. Project. - Consumer preferences for various classes and grades of beef.
   (1) For development in cities located in or near areas of market supplies.
   (2) Determine consumer carcass preference, carcass cut-out values, and practices of carcass up-grading as basis for improvement in methods of beef production and beef cattle marketing. The new Shen-Valley cooperative packing plant, starting slaughtering operations soon, offers possibilities of joint participation for carcass tests. Plant purchase of slaughter animals from producers on carcass yield and grade basis provides an additional source of valuable information.
   (3) Project development broad enough to merit consideration of regional participation by experiment stations under title 1, RMA.

d. Project - A beef cattle breeding and improvement project that fits particular needs of production areas, and results in the marketing

of a higher percentage of uniform quality, higher value animals.
(1) Procedure and participation patterned after Project c above.
(2) Results obtained from Project c essential source of supporting data for this activity.
(3) Possible market outlet (Shen-Valley Co-op) based on carcass value adds project strength.

C. W. Hammans, Ohio, Chairman — Paul Gerlaugh, Ohio
R. S. Boal, West Virginia — George C. Herring, Virginia
C. M. Kincaid, Virginia

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REPORTS OF OTHER COMMITTEES

The committees on "Grade Standards" and "Marketing Veal Calves" met jointly and prepared a report, which was presented to the conference for discussion and action. A few points of controversy arose during the discussion, which precluded the adoption of the report as written. It was left to the chairman of the session to decide what to do with the report, although the conference proposed that the committee be continued for further study of the subject.

The noncontroversial portions of the report and the discussion of it follows:

1. For the best interests of the livestock industry, it is desirable that uniformity in the interpretation of grade standards and their designations be accomplished as rapidly as possible throughout the area covered by this conference.

2. That official State grading services for veal calves be established at auctions and cooperative livestock markets in order that such animals may be marketed on a standardized quality basis.

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PERSONS ATTENDING THE CONFERENCE

Arkansas
M. W. Muldrow, An. Hus., Ext., University of Arkansas, Little Rock

Connecticut
D. C. Gaylord, An. Hus., Ext., University of Connecticut, Storrs

Kentucky
R. C. Hopper, An. Hus., Ext., University of Kentucky, Lexington
Richard C. Miller, An. Hus., Ext., University of Kentucky, Lexington

Maryland
James B. Outhouse, An. Hus., Ext., University of Maryland, College Park
James M. Vial, An. Hus., Ext., University of Maryland, College Park
DeVoe H. Willard, Mktg., Ext., University of Maryland, College Park

Massachusetts
Byron E. Colby, An. Hus., Ext., University of Massachusetts, Amherst

Michigan
W. L. Finley, An. Hus., Ext., Michigan State College, East Lansing

New York
Geo. R. Johnson, An. Hus., Ext., Cornell University, Ithaca
M. D . Lacy, An. Hus., Ext., Cornell University, Ithaca
Robert E. Rector, Empire Livestock Mktg. Co-op, 402 Savings Bank Bldg., Ithaca
Geo. H. Wellington, An. Hus., Ext., Cornell University, Ithaca

Ohio
W. H. Bruner, Ohio Wool Co-op, 2050 S. High St., Columbus
C. A. Ellickson, Swift & Co., Columbus
Paul Gerlaugh, An. Hus., State Experiment Station, Wooster
C. W. Hammans, Mktg., Ext., Ohio State University, Columbus
Lester C. Miller, Ag. Agent., B&O RR, 16 E. Broad Street, Columbus
James H. Warner, An. Hus., Ext., Ohio State University, Columbus

Pennsylvania
C. A. Burge, An. Hus., Ext., Pennsylvania State College, State College
N. L. Claiborne, Manager, Pittsburgh Producers Com. Co., Pittsburgh
L. C. Madison, An. Hus., Ext., Pennsylvania State College, State College

Tennessee
Raymond Adams, Division of Markets, State Office Bldg., Nashville
Paul P. Hite, An. Hus., Ext., A5 Sterling Court, Nashville
J. S. Robinson, An. Hus., Ext., University of Tennessee, Knoxville
William P. Tyrrell, An. Hus., Ext., University of Tennessee, Knoxville

Utah
Morris H. Taylor, Mktg. Ext., Utah State Agr. College, Logan

Virginia
D. E. Brower, Jr., An. Hus., Ext., Virginia Polytechnic Institute, Blacksburg
M. Lester Dalton, An. Hus., Ext., Virginia Polytechnic Institute, Blacksburg
Geo. C. Herring, An. Hus., Ext., Virginia Polytechnic Institute, Blacksburg
C. M. Kincaid, An. Hus., Exp. Sta., Virginia Polytechnic Institute, Blacksburg
Geo W. Litton, An. Hus., Ext., Virginia Polytechnic Institute, Blacksburg
C. P. McClaugherty, State Division of Markets, Narrows

West Virginia

Alton J. Anderson, Dept. of Agri., Charleston
Robert H. Black, An. Hus. Dept., West Virginia University, Morgantown
R. S. Boal, Mktg., Ext., West Virginia University, Morgantown
Benj. F. Creech, An. Hus., Ext., West Virginia University, Morgantown
C. J. Cunningham, Superintendent, West Virginia University Br. Exp. Sta., Wardensville
C. H. Hartley, Asst. Dir. of Extension, Weston
L. S. Hartley, Agr. Agent, B&O RR, Morgantown
E. A. Livesay, An. Hus. Dept., West Virginia University, Morgantown
J. B. McLaughlin, Comm. of Agri., Charleston
F. L. Miles, State Farm Bureau, Morgantown
Ben Morgan, An. Hus., Ext., West Virginia University, Morgantown
H. M. Newton, BAI Inspector in Charge, Charleston
R. W. Pitts, Commodity Services, Morgantown
A. C. Thrash, State Department of Agr., Charleston
Ross H. Tuckwiller, Farmer, Lewisburg
C. V. Wilson, An. Hus. Dept., Morgantown

District of Columbia

C. A. Burmeister, P&MA, USDA
Paul L. Fletcher, Ext. Ser., USDA
C. D. Lowe, Ext. Ser., USDA
C. G. Randell, FCA, USDA
I. H. Roberts, BAI, USDA, (Albuquerque, New Mexico, Box 704)
Benjamin Schwartz, BAI, USDA
Harry C. Trelogan, R&MA, USDA